

## REMARKS

### **Status of the Claims**

- Claims 1-26 are pending in the Application after entry of this amendment.
- Claims 1-33 are rejected by Examiner.
- Claims 1, 10, and 18 are amended by Applicant.

### **Claim Rejections Pursuant to 35 U.S.C. §101**

Claims 18-26 stand rejected under 35 U.S.C §101 because they are directed to non-statutory subject matter. Specifically, independent Claim 18, as drafted, is considered descriptive material without functionality. Applicant amends Claim 18 to more clearly claim the functionality represented by the instructions stored on the computer-readable medium. Applicant finds support for the amendment in Figure 4 and the related text of the as-filed specification. Applicant respectfully requests reconsideration and withdrawal of the 35 U.S.C. §101 rejection based on the present amendment to independent Claim 18.

### **Claim Rejections Pursuant to 35 U.S.C. §103**

Claims 1-4, 9-12, 17-21 and 26 stand rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,317,868 to Grimm et al. (Grimm) in view of U.S. Patent No. 5,974,549 to Golan. Applicant respectfully traverses the rejection.

Grimm teaches:

“The present invention is directed to processing a *software component* 11, which is shown in FIG. 1, so that it can be modified as appropriate to implement a security policy as defined for the site where the software component is executed. [...]”

Accordingly, the present invention enables such a component to be modified when it is directed to a computer to be executed at the site, so that when executed, the modified software component is forced to adhere to the security policy at the site.

When software component 11 as originally created needs to be loaded for execution by a computer, the present invention provides an introspection service 13 that intercepts the software component for analysis. Based upon information determined by introspection service 13, a security policy service 15 instructs an interposition service 17, which is also included in the present invention, how to modify the original software component to adhere to the security policies of the site. *The interposition service thus modifies the original software component by adding code to it producing a modified software component 21.*

*The modified software component is thus available for execution by the computer requesting execution of the original software component. During execution by this computer, the modified software component invokes an enforcement service 19, which maintains the computer's security state. The enforcement service responds to the system's security state, queries the security policy service for security decisions related to that state, and enforces them on the computer that is executing the modified software component.” (Grimm, col. 4 lines 9-44).*

Thus, Applicant notes that Grimm teaches that an original software component 11 is modified by an introspection service 13 by adding code. In Grimm, it is the modified software component, not the original software component, that is executed by the computer.

Amended Claim 1 recites (in relevant part):

1. An object model document comprising:
  - a compiled executable file for persisting an object model, the file having:
    - an image source ...;
    - a security source ...; and
    - a loader ....

Applicant notes that Grimm fails to teach a compiled executable file for persisting an object model having the three components of an image file source, a security source, and a loader.

Grimm teaches that the original software component is modified by injecting into the original software component calls to an enforcement service associated with security identifiers. Grimm teaches:

“A block 18 notes that the security policy service then *imposes security operations on the original component that modify the operations originally coded into it*. The code that is injected into the original software component in blocks 16 and 18 comprises calls to enforcement service 19, which instruct the enforcement service on how to manage the component system's security state and how to enforce security on the software component when it is executed as modified. In particular, *the security operations that are injected into the software component to modify it instruct the enforcement service on how to associate component system objects with security identifiers.*” (Grimm, col. 5 lines 28-42)

Grimm also teaches:

“After a modified software component has been loaded (i.e., linked and activated) by *a component system*, it executes on the component system in the same manner it would have prior to modification by the present invention-with one important exception. *The security operations that have been injected into the software component to create the modified version by the interposition service are now executed along with the code comprising the original software component.*” (Grimm, col. 6 lines 6-14).

Thus, Grimm teaches that the software component is leaded by a component system. Grimm fails to teach that a loader, included with the image source file and the security source is provided. Grimm also teaches that calls to the enforcement server 19 (Grimm, Figure 1) are inserted directly into the original software component to generate the modified software component as in block 18 (Grimm, Figure 2). This specific modification is important to Grimm so that the security operations are executed along with the original software

component. Amended Claim 1 has no such function. Applicant respectfully submits that Grimm and Claim 1 have different functionalities.

Amended Claim 1 does not modify any image source or object model as does Grimm. Amended Claim 1 recites an “object model document” comprising a compiled executable file having three distinct parts; an image source, a security source, and a loader. Grimm does not teach an executable file that includes an image source, a security source, and a loader as recited in amended Claim 1.

Whereas Grimm teaches a single entity called a “modified software component” that includes an original software component with security operations coded into it, amended Claim 1 recites an object model document that is a compiled, executable file that contains (1) an image source, (2) a security source, and (3) a loader, all in a single executable entity. Applicant cannot find in Grimm a loader included in an executable entity along with an image source and a separate security source as recited in amended Claim 1. Thus there are clear structural differences between the teachings of Grimm and the invention of Claim 1.

Applicant also notes that the invention of amended Claim 1 also includes the functionality of the loader. In amended Claim 1, the loader itself becomes instantiated in the memory of the computer along with the object model from the image source and the security agent in the memory from the security source. These instantiations are shown clearly in Figure 4, in memory 34, of the present specification and are expressed in amended Claim 1. Applicant respectfully submits that Grimm does not teach either the executable object model document containing the loader, the image source and the security source. Grimm also does not teach the instantiations in computer memory that include the loader, the object model, and the security agent upon execution of the object model document as recited in amended Claim 1.

The Office Action on page 4 states:

“Grimm doesn’t expressively mention that returning to the commander a first reference to the instantiated security agent.” (Office Action, page 4).

Applicant agrees. However, Applicant notes that Golan fails to teach the amended Claim 1 elements that are missing from Grimm. Specifically, Golan also fails to teach an

object model document comprising a compiled executable file having the elements of an image source, a security source, and a loader. Golan also fails to teach that the loader, upon a command from a commander to execute the executable file, instantiates the loader itself, the security agent from the security source, and the object model from the image source as recited in amended Claim 1.

Applicant notes that independent Claims 10 and 18 also recite the elements that are missing from the teachings of Grimm and Golan. Since the combination of Grimm and Golan does not teach or suggest all elements of independent Claims 1, 10 and 18, then the combination of Grimm and Golan cannot render obvious these independent claims under 35 U.S.C. §103(a) per MPEP §2143.03. Accordingly, dependent Claims 2-9, 11-17, and 19-26, which rely on independent Claims 1, 10, and 18 respectively are likewise rendered non-obvious. Thus, Claims 1-26 patentably define over the cited art.

#### **Claim Rejections Pursuant to 35 U.S.C. §103**

Claims 5, 13 and 22 stand rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,317,868 to Grimm et al. (Grimm) in view of U.S. Patent No. 5,974,549 to Golan and in further view of US Publication No. 2003/0200459 to Seeman. Applicant respectfully traverses the rejection.

Claims 5, 13, and 22 are dependent on independent Claims 1, 10, and 18 respectively which are shown to be patentably distinct from Grimm and Golan as explained above. The addition of Seeman does not cure the deficiency of failing to teach all of the elements of the independent claims. According to MPEP §2143.03, Claims 5, 13, and 22 are also rendered non-obvious. Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection of Claims 5, 13, and 22 because these claims patentably define over the cited art.

#### **Claim Rejections Pursuant to 35 U.S.C. §103**

Claims 6, 7, 14, 23, and 24 stand rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,317,868 to Grimm et al. (Grimm) in view of U.S. Patent No. 5,974,549 to Golan and in further view of US Patent No. 6,980,308 to Masaki. Applicant respectfully traverses the rejection.

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**PATENT**  
**REPLY FILED UNDER EXPEDITED**  
**PROCEDURE PURSUANT TO**  
**37 CFR § 1.116**

Claims 6-7, 14, and 23-24 are dependent on independent Claims 1, 10, and 18 respectively which are shown to be patentably distinct from Grimm and Golan as explained above. The addition of Masaki does not cure the deficiency of failing to teach all of the elements of the independent claims. According to MPEP §2143.03, Claims 6-7, 14, and 23-24 are also rendered non-obvious. Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection of Claims 6-7, 14, and 23-24 because these claims patentably define over the cited art.

**Claim Rejections Pursuant to 35 U.S.C. §103**

Claims 8, 16, and 25 stand rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,317,868 to Grimm et al. (Grimm) in view of U.S. Patent No. 5,974,549 to Golan and in further view of US Publication No. 2002/0138727 to Dutta et al. (Dutta). Applicant respectfully traverses the rejection.

Claims 8, 16, and 25 are dependent on independent Claims 1, 10, and 18 respectively which are shown to be patentably distinct from Grimm and Golan as explained above. The addition of Dutta does not cure the deficiency of failing to teach all of the elements of the independent claims. According to MPEP §2143.03, Claims 8, 16, and 25 are also rendered non-obvious. Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection of Claims 8, 16, and 25 because these claims patentably define over the cited art.

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**Conclusion**

In view of the above amendments and remarks, Applicant respectfully submits that the pending claims are not obviated by the cited art. Applicant respectfully requests reconsideration and withdrawal of the rejections. Applicant respectfully and earnestly solicits a Notice of Allowance for all pending claims.

Respectfully submitted,

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/Jerome G. Schaefer/

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